

VHL/E 1 ATGACACCGACGACGACGCCGGAACTCAG 55
 VHL/E 54 ACGGAGTTGACTACGACGATGAAGCGACTCCC 60
 VHL/E 59 TGTGTCCTCACCGACGTGCTTAATCAGTCGAAG 66
 VHL/E 100 CCAGTCACGTTGTTCTGTACGGCGTTGTCTT 102
 VHL/E 133 CTCTTCGGTTCCATCGGCAACTTCTTGGTGATC 105
 VHL/E 166 TTCAACCACACCTGGCGACGTGGATTCAATGT 108
 VHL/E 199 TCCGGCGATGTTACTTTATCAACCTCGCGGCC 201
 VHL/E 232 GCCGATTGCTTTCGTTGTACACTACCTCTG 204
 VHL/E 265 TGGATGCAATACCTCCTAGATCACAACCTCCCTA 207
 VHL/E 298 GCCAGCGTGCCGTACGTTACTCACTGCCGT 300
 VHL/E 331 TTCTACGTGGCTATGTTGCCAGTTGTGTTT 303
 VHL/E 364 ATCACGGAGATTGCACTCGATCGCTACTACGCT 306
 VHL/E 397 ATTGTTACATGAGATATCGGCCTGTAAAAACAG 400
 VHL/E 430 GCCTGCCCTTTCAGTATTTTGGTGGATCTT 402
 VHL/E 463 GCCGTGATCATGCCATTCCACACTTATGGTG 405
 VHL/E 496 GTGACCAAAAAAGACAATCAATGTATGACCGAC 500
 VHL/E 529 TACGACTACTTAGAGGTAGTTACCCGATCATC 501
 VHL/E 562 CTCAACGTAGAACTCATGCTCGGTGCTTCGTG 504
 VHL/E 595 ATCCCCGTCAGTGTATCAGCTACTGCTACTAC 507
 VHL/E 628 CGCATTCCAGAACATGTTGCCGGTCTCAGTCG 508
 VHL/E 661 CGCCACAAAAGGCCGCATTGTACGGGTACTTATA 509
 VHL/E 694 GCGGTGCGTGTCTTATCATCTTTGGCTG 520
 VHL/E 727 CCGTACCAACCTGACGCTGTTGTGGACACGTTG 520
 VHL/E 760 AAACTGCTAAATGGATCTCCAGCAGCTGCGAG 522
 VHL/E 793 TTGAAAAATCACTCAAGCGCGCTCATCTTG 525
 VHL/E 826 ACCGAGTCACTCGCCTTGTACTGTTGTCTC 528
 VHL/E 859 AATCCGCTGCTGTACGTCTCGTGGGCACCAAG 531
 VHL/E 892 TTTCGGCAAGAACGTGACTGTCTGCTGGCCGAG 534
 VHL/E 895 TTTGCCAGCGACTGTTTCCCGCATGTATCC 537
 VHL/E 928 TGGTACCAACAGCATGAGCTTTCGCGTCGGAGC 539
 VHL/E 961 TCGCCGAGCCGAAGAGAGACGTCTCCGACACG 542
 VHL/E 1004 CTGTCCGACGAGGCCTGTCGCGTCTCACAAATT 545
 VHL/E 1037 ATACCGTAA

1066

Fig. 1A

VHL/E 1 MTPTTTAAELTEFDYDDEATPCVLTDVLNOSK 33
VHL/E 34 PVTLFYGVVFVFGSIGNFLVIFTITWRRRIQC 66
VHL/E 67 SGDVYFINLAAADLLFVCTLPLWMQYLLDHNSL 98
VHL/E 100 ASVPCTLLTACFYVAMFAASLCFITEIALDRYYA 132
VHL/E 133 IIVYMARYRPVKOACLFSIFWWIFAVIIIAIPHFMV 165
VHL/E 166 VTKKDNCMTDYDYLEVSYPIILNVELMLGAFV 188
VHL/E 199 IPLSVISYCYYRISRIVAVSQSRHKGRIVRVL 231
VHL/E 232 AVVLVFIIIFWL PYH LTL FVDTLKLLKWISSSCE 264
VHL/E 265 FEKSLKRALILTESLAFC H CCLNPLL YVFVGTK 297
VHL/E 298 FROELHCLLAEFRQLFSADVSWYHSMSFSRRS 330
VHL/E 331 SPSRRETSSDTLSDEACRVSQIIP 354

Fig. 1B

human US28	1	M T P T T		5
rhesus US28.1	1	M		1
rhesus US28.2	1	M T N A		4
rhesus US28.3	1	M T N T		4
rhesus US28.4	1			0
rhesus US28.5	1	M T T T M S A T T N S S T T P Q A S S T T M T K T S T P G N		32
human US28	6	- - - T T A E I L T -		12
rhesus US28.1	2	- - -		1
rhesus US28.2	5	- - -		4
rhesus US28.3	5	- - -		4
rhesus US28.4	1	- - -		0
rhesus US28.5	3	T T T G T T S T L T T I S T T S N A T S I T S N L S T T G N Q T		64
human US28	13	- - -		12
rhesus US28.1	2	- - -		1
rhesus US28.2	5	- - -		6
rhesus US28.3	5	- - -		7
rhesus US28.4	1	- - -		15
rhesus US28.5	5	A T T N A T T F S S T L T T S T N I S S T F S T V S T V A S N A		96
human US28	13	- - -		12
rhesus US28.1	5	S C N		8
rhesus US28.2	7	- C H		9
rhesus US28.3	8	- T C H		11
rhesus US28.4	6	- - -		21
rhesus US28.5	7	T C N S T I T T N I T T A F T T A A N T T A S S L T S I V T S L		128
human US28	13	- - - F F D Y D E D A T P C V F T D V L N Q S K P V T L		37
rhesus US28.1	9	N V T L N A S A -		23
rhesus US28.2	10	- N E S L A S Y G		24
rhesus US28.3	2	- N G T F E T F K		26
rhesus US28.4	22	- - -		21
rhesus US28.5	9	A T T I E T T S F D Y D E S A E A C N L T D I V H T T R S V T V		160
human US28	38	F L Y G V V W F L I E G S I G N E -	L M V E T I T W B R R I Q C S G	68
rhesus US28.1	24	A M Y S I V V I C G G L V G N E -	I C G M V L V K - K R K I K R Y S S	54
rhesus US28.2	25	T I L Y S I A G I C G V T G N L E	E I C M V L F T - B R I H W F A N	55
rhesus US28.3	27	S A Y T V E V M I G G L L G N I	V I L S V E V V - K R K I K L K F P N	57
rhesus US28.4	22	- Y T C V F L I E G I L G H F Y	L Y W K N E T I T E T N S F S	51
rhesus US28.5	1	T F Y T I F I E G G L L G N E -	V I M T I I W N R R I S E M V Y	191
human US28	69	D V Y F I N L A A A D I I F V C T L P L W M Q Y L L D H N I S L A		100
rhesus US28.1	55	D V Y F F H A S M A D L V S T V M L P L W L H Y V L N F A Q L S		86
rhesus US28.2	56	D I Y Y L N M I F T D F V I E T L P A A W V Y Y L N Y T O L S		87
rhesus US28.3	58	D I Y F F N A S L A D V F A M C M L P A A W V N Y A L D S T Q L S		89
rhesus US28.4	52	D V L F R B H L M I T E V F T L T I P P W V A Y H L T T H G N L P		120
rhesus US28.5	2	F I Y F V N L A I S D L M F V C T L P F W I M Y L L E H D V M S		114
human US28	101	S V P C T L L T A C F Y V A M E A S U C F I T E I A L D R Y Y A		132
rhesus US28.1	87	R I G A C I S F S V T F Y V P L F V Q A W L E I S I A M E R - Y S		117
rhesus US28.2	88	H Y A C I A L S F V F Y V S I F I Q A D F M V A V A I E R - Y R		118
rhesus US28.3	30	K F S C I T F T F G F Y V S L F I Q A W M L I E V T L E R - Y G		120
rhesus US28.4	44	G S W C B R S L T F V F M E T V F A R A F F Y L L I W D R - Y S		114
rhesus US28.5	24	H A S C V A M T A I F Y C A L F A S T V F I S V I L D R C Y A		255

FIG. 2 (Page 1 of 2)

human US28	133	L V Y M R Y R E V K Q - - - - - A C H P S I F W W I F E A M I	157
rhesus	118	N L V W M A P I S V K - - - T A F K H C I G T - - - M I V S A F	143
rhesus	US28.29	S I L V K N K P L S V K - - - K A S V C A C H - - - M I V S A F	144
rhesus	US28.31	S I L V W I T A P I T R N - - - K A I A N C V I F - - - M I V S I L E	146
rhesus	US28.46	V I I C B H P I P V N L N Y S Q V I G L - - - I S V W - - - I V A V	141
rhesus	US28.56	I I I G T E K A N R R L L R N A V S G C M I M - - - M G I C F T I	284
human	US28.158	E A I I P H F M V V T K - K D N Q C - M T D Y D Y - L E V S Y P I	186
rhesus	US28.144	V A S P Y Y A Y R N S E E H E C I L G N Y T W H I N E P L H T	175
rhesus	US28.215	V S S P Y Y M F R I S O H E T N S I C I L G N Y T W H I M N S P F R T	178
rhesus	US28.317	L A A P Y Y S F R I N E E H Q C I M R N Y T W S V G F T W H I	178
rhesus	US28.442	E S A S P F S I F N G - S V K Q C - L G I N M G S I P S E S S A	170
rhesus	US28.535	A L P H F I F M K K - G T N V C - V A F Y E P G I N N F Y V I	314
human	US28.187	I I N V E L M L G A F V I P R E S V I S Y C Y Y R I S R I V A V S	218
rhesus	US28.176	C M D O V V I I I A W T F L A R V Y V I H E A S V K M - R P E E T W G	206
rhesus	US28.277	T M D A S I N I I W S F V V P A V T T L L I A R R I Y V - C T S G	207
rhesus	US28.393	A L D F E I T T E I M P V T I V I A L S F K M A R W S T F G	210
rhesus	US28.471	V I N L E V H L C S F W L P L I M S A N C Y Y O A K R B A S P D	202
rhesus	US28.515	F I N T E V N I C T V I V P A A A I I Y W Y I K L I K A L K T H	346
human	US28.219	Q S - R H K G R I V R V I L I A V V I S S C E F E R S I K R A L I T E S L A	243
rhesus	US28.207	N T - R H E N K N S D I D I I I I I I M I T V F F W G P F N I P V E V	237
rhesus	US28.288	N K - K M M A R A S G L L I F A M V I S M E F E G G I L F N L N I F	238
rhesus	US28.311	Y R - N I T S R T S L L I I I I I I T V A A G F W G P F H L E M F	241
rhesus	US28.403	Q - U H E L Y R C S L I I I I I I T T Y A I V W W F P F H L A L E	237
rhesus	US28.547	E R E R H R U T S N I I I I I I I I I I I I F W L P Y N L M L M	378
human	US28.250	V D T L K I I L K W I I S S C E F E R S I K R A L I T E S L A	280
rhesus	US28.238	D N I I L Q R Y Y D I T - T N C D V F K I K H I M A M I S E A I V	268
rhesus	US28.299	R D - I V S D T S E D N K D C T Y L K O E H F I R M V G V A L V	269
rhesus	US28.342	I E N V A G Q O I I Y H I C K D C W Y L O L R H L C S L M T E T L V	273
rhesus	US28.433	M D A I L I S - I I S H V I E P S S A L H W A - - S I V V T C K S F T	261
rhesus	US28.579	M Y S L V H - M Q - I P W E C S S E K I I R R S S L I T E S I A	408
human	US28.281	E C H C C L N P L L Y M E V G T K F R O E L H C L L A E F R O R	312
rhesus	US28.369	Y F R I G I T A P I I I V G I S G R E F F E I Y S L F R R O D E N	300
rhesus	US28.270	Y G R A I F N P F M Y M C V S T B L R O E I I K C L F M R I P Y E	301
rhesus	US28.374	F L R S V F N P Y I Y M I I S I Y K E R R O Q V I R S S L L K R A G Y D	305
rhesus	US28.462	F V Y A G I S P L V Y F T C C P T V R R E L L L M S L I R P F F T	292
rhesus	US28.599	I S H C C I N P I I Y I I I F G P R C B S E F C H I I R C C F T R	440
human	US28.313	L F S R I D V S W - - Y H S M S F S R R S S P S I R A E I S S D T L	342
rhesus	US28.301	D L D P D A N - - - - O F M I E L T S I O G R S H N R M A R O S	327
rhesus	US28.202	T L D A I E H A - - - - K I M V N L K N R N A N V P D P K - - -	325
rhesus	US28.306	A L D T T Q L - - - - A E T M O L K A G V P V S P D A P - - -	329
rhesus	US28.403	- - - - M I S S K I R R G Y A P I K T O P L N I P D E P I	317
rhesus	US28.541	I - C P H R I S W S S I R A E T Y S I S L S H S Q V S A S S E D	471
human	US28.343	S D E V C R V S O I I P	354
rhesus	US28.328	E S N V P O P E E C F W	338
rhesus	US28.228	- - - P R E Y E V S V L	333
rhesus	US28.330	- - - P H D C E C F L	337
rhesus	US28.448	D N K S P H I L N - E	327
rhesus	US28.572	D N D D V H D E L O F I	483

FIG. 2 (Page 2 of 2)

human UL78	1	M S P S V E E T T S V T E S I M [E A I V S F K H M G P F E G Y	31
rhesus UL78	1	- - - - -	0
human UL78	32	S M S A D R A A S D I L L I G M F G S V S L V N [E T E I G C [6	62
rhesus UL78	1	[M I T E R V L A G E I L A G M T A A G S E V R E E A V V - M	28
human UL78	63	W V L R V T R P - - P V S S V M I F T W N L V L S Q F F S I I L A	91
rhesus UL78	29	W L N M L D R A G M P M A V G H Y T G N L V L T Q V I C I F S	59
human UL78	92	[T M L S K G I M L R G A L N L S L C R E V L F V D D V G L Y S	122
rhesus UL78	60	[M L A S K I V G M T S A A N M G F C G I M A V F L E D T G L Y	89
human UL78	123	T A L E F E S E F L I I L D R L S A I S Y G R D L W H H E - T R E N	152
rhesus UL78	90	V T S E L F M R M I L D R M A A F L N G R L F W R Q G E T K O	120
human UL78	153	A G V A I S Y A V A F A W V A L S I V A A V P T A A T G S L D Y R	183
rhesus UL78	121	N L S T S V Y [I E R C W V L G M A A A V P S A A V A A P N S	151
human UL78	184	W L G C Q I P I Q Y A A V D L T I K M W F L L G A P M I F A V A E	214
rhesus UL78	152	[W E R C E I P V S Y A A I D M I V K I E W F V L I A P V V L E	182
human UL78	215	A N V V E L A Y S D R D H V W S Y V G R V C T F Y V T G E M	245
rhesus UL78	183	M A V I I Q S S Y H E E R I W Y Y A R R V F M F Y T A C E	213
human UL78	246	[E F V P P Y Y C F R V - - - - L R G V - L Q P A S A A G T G	269
rhesus UL78	214	V M M V P Y Y F V R V M L S D F A L V D I K T K T A N S D G C	244
human UL78	270	F G I M D Y V E L A T R T I L L T M R L G I D P I E F I H A F F S	300
rhesus UL78	245	D S T F L D Y L N M F T H V I Y S F K L V V T A E E V M I E C	275
human UL78	301	R E E T K D L D D S F D Y L V E R C Q Q S C H G H F V R R L V	331
rhesus UL78	276	S I N P M E T L E E C L E R A D A E I R Q S H S E A S Q G E R R	306
human UL78	332	Q A L K R A M Y S V E L A V C Y F S T S V R D V A E A V K K S	362
rhesus UL78	307	L P I N T C C I K L I E L I K Q Y V S T L S K A E H D I N S G I E	337
human UL78	363	S S R C Y A D A T S A A V V V T T T T S E K A T L V E H A E G	393
rhesus UL78	338	R A N L P E N A E D I G T T G S D Q L P T E V T V T P N S S A	368
human UL78	394	M A S E M C P G T T I D V S A E S S S V L C T D G E N T V A S	424
rhesus UL78	369	V F S T G G T V S P V	379
human UL78	425	D A T V T A L	431

FIG. 3

HUL33	1	M
HUL33splice	1	MOTIIHNS
RHUL33	1	M
RHUL33splice	1	MATVTLRGGSPINFKLMIVSHESRDFHEIRLFQH
HUL33	10	M
HUL33splice	10	MENENPP
RHUL33	10	M
RHUL33splice	10	RSAIRPGGLWKPFFTTETNSILHINTTCNV
HUL33	21	T
HUL33splice	21	GPLFAIRITTEAVLN
RHUL33	21	T
RHUL33splice	21	GPLFAIRITTEAVLN
HUL33	22	D
HUL33splice	22	DISIYIAAKLGEAIVNSALAI
RHUL33	22	T
RHUL33splice	22	GILANRVHGYSTPIIYMNTNLYSANFLT
HUL33	23	E
HUL33splice	23	IVLSNOWLLPAGVVASCKF
RHUL33	23	E
RHUL33splice	23	IVLSNOWLLPAGVVASCKF
HUL33	24	A
HUL33splice	24	TAVALGHAADRYRVLHKKRPEM
RHUL33	24	A
RHUL33splice	24	TAVALGHAADRYRVLHKKRPEM
HUL33	25	A
HUL33splice	25	TAVALGHAADRYRVLHKKRPEM
RHUL33	25	A
RHUL33splice	25	TAVALGHAADRYRVLHKKRPEM
HUL33	26	E
HUL33splice	26	ETWLAGEELEFSVPAAVYT
RHUL33	26	E
RHUL33splice	26	ETWLAGEELEFSVPAAVYT
HUL33	27	G
HUL33splice	27	GHATCVCYEVFAAEVHTVLLSWKVLL
RHUL33	27	G
RHUL33splice	27	GHATCVCYEVFAAEVHTVLLSWKVLL
HUL33	28	P
HUL33splice	28	PVIMMTWYAFFYSTVORT
RHUL33	28	P
RHUL33splice	28	PVIMMTWYAFFYSTVORT
HUL33	29	M
HUL33splice	29	MELTISSEVALQT
RHUL33	29	M
RHUL33splice	29	MELTISSEVALQT
HUL33	30	H
HUL33splice	30	HTLRRRTIGTLARVVPHLHCLINPILYALLGH
RHUL33	30	H
RHUL33splice	30	HTLRRRTIGTLARVVPHLHCLINPILYALLGH
HUL33	31	D
HUL33splice	31	DFTLRRRVINTFSRLVPNLHCMVNPILYALMGH
RHUL33	31	D
RHUL33splice	31	DFTLRRRVINTFSRLVPNLHCMVNPILYALMGH
HUL33	32	D
HUL33splice	32	DFLORMRQCPRGQOLLDRRAFLRSQDNRAYA
RHUL33	32	D
RHUL33splice	32	DFLORMRQCPRGQOLLDRRAFLRSQDNRAYA
HUL33	33	D
HUL33splice	33	DFVSKVVGQCFRGIEITINRRTFLRSQDNRAYA
RHUL33	33	D
RHUL33splice	33	DFVSKVVGQCFRGIEITINRRTFLRSQDNRAYA
HUL33	34	T
HUL33splice	34	TNLAAAGNNNSQS
RHUL33	34	T
RHUL33splice	34	TNLAAAGNNNSQS
HUL33	35	V
HUL33splice	35	VPTIVSQQP
RHUL33	35	V
RHUL33splice	35	VPTIVSQQP
HUL33	36	F
HUL33splice	36	FNFPSGTWKGGOKTASNDTSTKIPHRLSOSH
RHUL33	36	F
RHUL33splice	36	FNFPSGTWKGGOKTASNDTSTKIPHRLSOSH
HUL33	37	S
HUL33splice	37	FSVSASSELAAA
RHUL33	37	S
RHUL33splice	37	FSVSASSELAAA
HUL33	38	N
HUL33splice	38	NLSGV
RHUL33	38	N
RHUL33splice	38	NLSGV
HUL33	39	N
HUL33splice	39	NLRLT
RHUL33	39	N
RHUL33splice	39	NLRLT

FIG. 4

Binding of Fractalkine to HCMV Virions

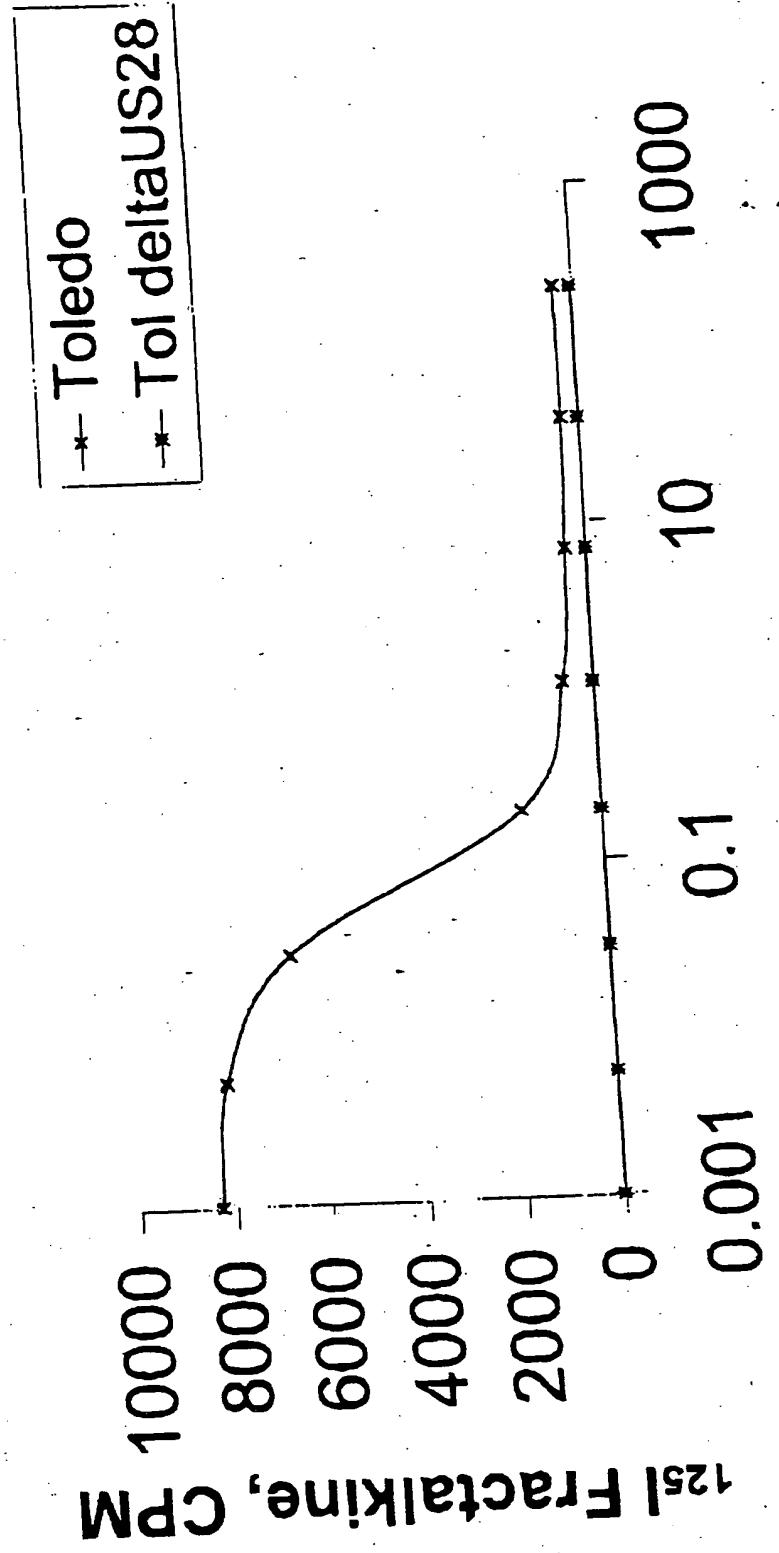


FIG. 5

**Fractalkine Homologous Competition
on Rh-CMV Infected Fibroblasts**

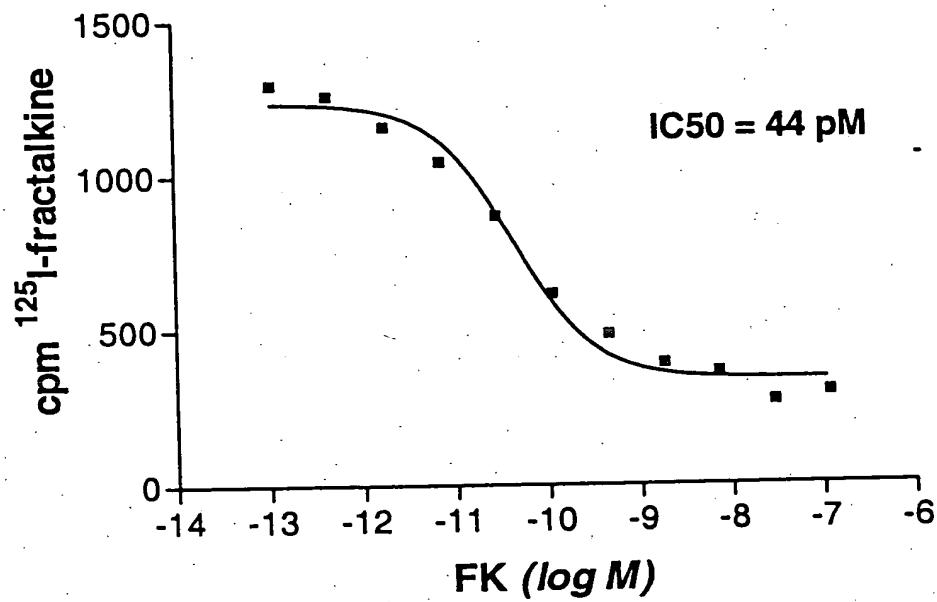


FIG. 6

Sucrose Virions/CX3C binding

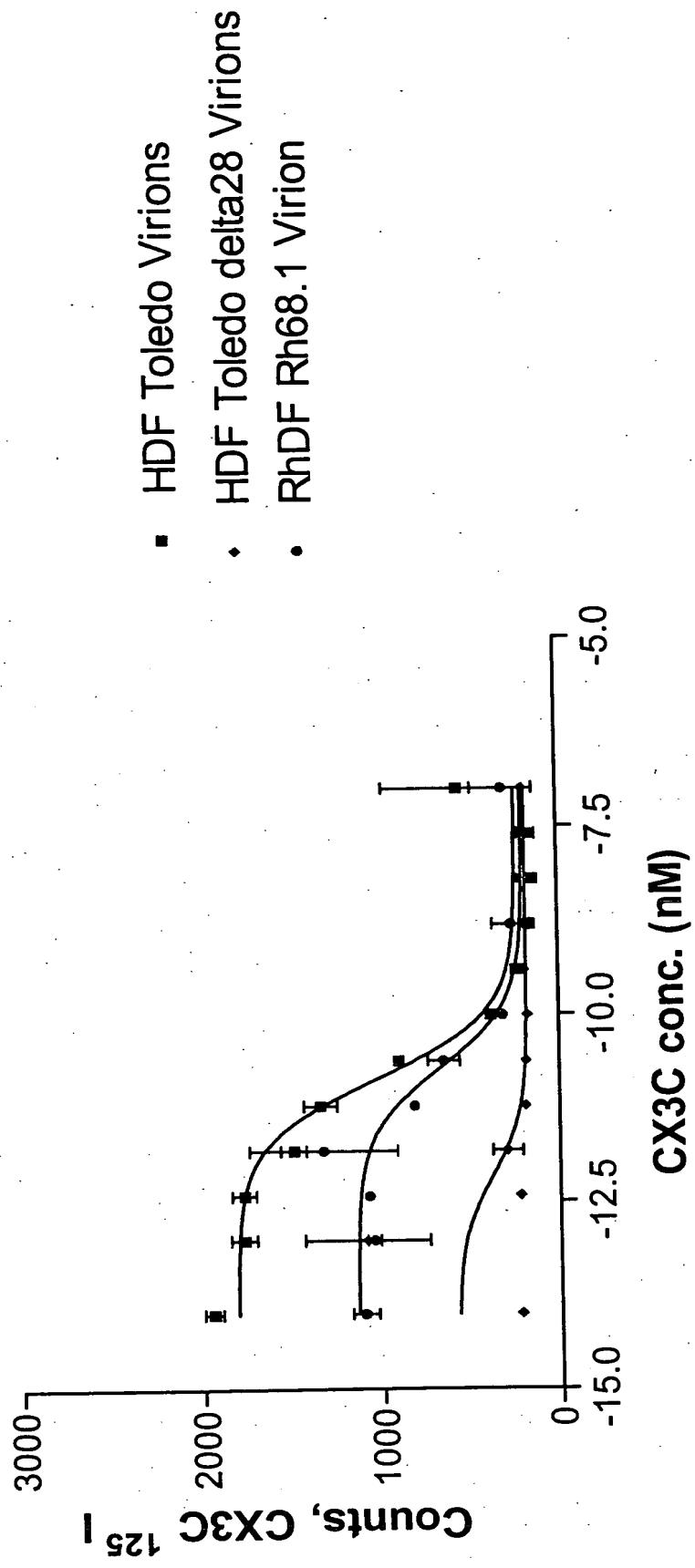


FIG. 7